TIM 80C Lecture 16 (5/22/14)

Agenda

1) Review Funding Plan (Lecture 15)

2) Financial Strategy & Ownership, dilution, Shares, and Valuation

3) End-games for a Start-up

4) Project
   - Phase III Feedback
   - Phase IV assignment

5) Roadmap for the rest of the quarter
2 Financial Strategy: Dilution, Ownership, Shares, and Valuation

Funding Process

1) The company's founders are willing to give up D% (called the dilution) of the company

2) In return for D% of the company (equity) investors (VC, angel, etc) provide the company with $I (the investment)

Value of the company:

D% of the company = $I

the whole company 100% = \( \frac{100}{D\%} \times $I \)

Definition: Post Money Value

The post money value of the company is the value ($) of the company after it receives funding

Post Money Value = \( \frac{100\%}{0\%} \times $I \)
Example:

Founders are willing to give up 20% of the company for $1M of seed money to develop a prototype of the product.

Dilution, $D = 20\%$

Investment, $I = $1M

Post-money Value = $\frac{100\%}{20\%} \times$1M

= 5 \times $1M

= $5M

After funding, the company (startup) will be worth $5M.
Definition: Pre Money Value

The pre-money value of the company is the value ($\) of the founders' share of the company.

Pre-Money Value = Post Money Value - Investment

\[
= [\frac{100\%}{D\%} \times \$I] - \$I
\]

\[
= \left[\frac{100\% - D\%}{D\%}\right] \times \$I
\]

Example

D = 20\%
I = $1M
Post Money Value = $5M

Pre Money Value = \[
= \left[\frac{100\% - D\%}{D\%}\right] \times \$I
\]

\[
= \left[\frac{100\% - 20\%}{20\%}\right] \times \$1M
\]

\[
= \$4M
\]
3) Decide on the total number of shares to issue in order to keep track of ownership.

\[ S_t = \text{total number of shares} \]

The value (\$) of \( S_t \) is equal to Post Money value of the company.

\[ \left[ \frac{100\%}{D\%} \right] \times \$I = S_t \times \text{price per share} \]

Price per Share = \[ \left[ \frac{100\% \times \$I}{D\% \times S_t} \right] \]

Example:

\( D = 20\% \quad \text{Post Money Value = \$5M} \)

\( I = \$1M \)

Company decides to issue 10M shares.

\( S_t = 10M \)

Price Per Share = \[ \left[ \frac{100\% \times \$1M}{20\% \times 10M} \right] = \frac{\$1M}{2M} = \$0.5 \]
Rule of Thumb

In the initial round of funding (seed funding)

Price per share = $1 (50 cents to $2)
3) End Games for Start-Ups

1) Get acquired by a large company (Microsoft, Apple, Cisco, Facebook, etc)

2) Become a public company through an Initial Public Offering (IPO)

   Advantage: the company now has access to trillions available on the securities market (stocks, bonds, and other financial products)

   Disadvantage: the company is now controlled by a board of directors that is elected by the shareholder (everyone who owns stock)

3) Remain a private company (not publicly

   Advantage: founders retain more control

   Disadvantage: less funding available (consulting and service companies often remain private)
Good

Phase III: Overall the work on Phase III was very good

Excellent

General Comments

- Most groups have all the data (Porter Model, Revenue Map, etc.) but need on the data analysis (so what).

- Make sure the conclusions from the data analysis are meaningful

Example: Porter Model

(Generic) Shows the competitors in the industry

(Specific) Shows that there are two large companies that are strong competitors, Apple and Samsung. We need to avoid them by not competing on the same market segments.
- Make sure all parts of the business plan are integrated

Example: business goals are consistent with cash flow analysis
Phase IV Assignment

1) Complete any back log of work from Phase I, II, III
   - Conceptual Design
   - Market Strategy
   - Business Strategy
   - Financial Strategy

2) Add the complete Financial Strategy
   - Funding Plan: Objectives, Source of funding, dilution, ownership, shares of stock
   - Accounting: Income Statement and Balance Sheet
   - Financial Health Metrics: ROI, Profit Margin, etc.

3) Complete Business Plan (Final Draft)
   - Phase III feedback

4) 10-15 minute presentation for "pitching" your startup to investors (e.g. VC)
   - About Company (1-2 Slides)
   - The Product (2-3 Slides)
   - The Market Strategy (1-2 Slides)
   - The Business (Competitive) Strategy (1-2)
   - The Financials (2-3)
5) Roadmap for the rest of the quarter

Tuesday: Guest lecture by Paul Vroomen (5/27) on "What Drives Venture Capital"

Entrepreneur  \}  Semi Conductor
              ↓          Space/Industry
Venture Capitalist ↓
PhD student    \} equity based
                Crowd funding

Attendance is Mandatory

Thursday: Course Closure, lessons learned (5/29)
HW 5: financials + lessons learned

Tuesday: Presentation by Tommy Baeett (5/3)
(recent graduate of the UCSC TIM Program) on his start-up
MakeSmith

Project Presentation

Attendance is Mandatory
Thursday: Project Presentations
(6/5)

Attendance is Mandatory

Tuesday: Final Exam in-Class
(6/10)

HW 5 due

Project report (Business Plan) due

Attendance is optional but recommended